

at Washington, D. C. and New Orleans, La., Gray Herbarium of Harvard University, New York Botanical Garden, Missouri Botanical Garden, Chicago Natural History Museum, University of Florida, Florida State University, University of Georgia, University of Tennessee, and University of Alabama.—SOUTHERN FOREST EXPERIMENT STATION, FOREST SERVICE, U. S. DEPT. OF AGRICULTURE.

VIABILITY OF SEED OF THE BLACK LOCUST.—In the early spring of 1930, on property now owned by Orland H. Soule, of Schoolcraft, Michigan, a mulberry hedge was set. In preparation for the planting a trench about eight inches deep was made. This brought to the surface some of the deeper soil. Later in the same season along a five-rod length of this planting 57 seedlings of black locust, *Robinia Pseudo-Acacia*, two and three inches high were counted at one time.¹

I learned that locust trees that had been killed by borers were cut down in 1867 on property belonging to Dr. Nathan Thomas. The Thomas family kept diaries and I had first-hand the information about the time and the condition of the trees when cut. The trees had been on the east side of a four-rod street; the mulberry hedge, set in 1930, was directly opposite on the west side. I have been familiar with these two homes for the past 60 years and no trees of this species have been there during that period.

At the time the locust trees were removed wooden sidewalks were used and yards were enclosed by fences. The locust legumes naturally lodged against the fence and renewal of parts of sidewalk and posts for the fence placed some of the seeds where germination would cease. Locust seed is very hard and sprouts only under the most favorable conditions. Some years ago to get locust seedlings for future fenceposts the writer soaked the seed for several days. Each morning it was stirred in boiling water.

The mulberry hedge mentioned proved a nuisance and was cut in 1954. If it had been pulled out some of the deeper soil would have been brought to the surface and a favorable opportunity afforded to discover whether any seeds were still viable after another 25 years. The only remaining project

¹ HANES, CLARENCE R. AND FLORENCE N. Flora of Kalamazoo County, Michigan. 167: 1947.

was to exchange soil. Mrs. Hanes and I did this May 7, 1955. The top four inches of soil, between sidewalk and the roots of the mulberries, were taken out at two separate spots, each one by two feet in area. Then two bushels of the deeper soil were removed, one bushel of which was taken to our home and the other returned to the place from which it had been dug, only it was topside now. At our home we placed the soil in a plot two feet square and about four inches deep. The plot was well watered before and after the soil had been deposited.

We understood the chance for success in picking up soil with viable seeds was almost nil. Would the seed be present in the small amounts of soil under observation and if there were any, would they still be viable? We were pleasantly surprised for we have on July 12, 1955 in our home plot two vigorous locust seedlings, the one five inches, the other three inches high. The latest leaves of these have nine and seven leaflets respectively.

The home plot was well watered; the one along the hedge on the Soule's property had only the natural rainfall, which was scarce in early June but much more abundant later. At the time this paper was written, July 12, 1955, two small seedlings large enough, however, to show their identity had appeared.

The fact that four locust seedlings have grown in soil from the same location 25 years after the 57 that were discovered in 1930 appears to substantiate the conclusion that these seeds, dormant since the close of the Civil War, came from the trees cut in 1867. Some black locust seeds therefore stay viable for at least 88 years. We cannot say how long before 1867 the trees ceased to bear fruit.—CLARENCE R. HANES, SCHOOLCRAFT, MICHIGAN.

SILENE VIRGINICA IN THE GULF STATES.—The occurrence of *Silene virginica* L. in north Louisiana was first reported to me by Mr. Roy Morgan, a professional forester working in this area. In addition to his collection from Union Parish, I have collected it along the south side of D'Arbonne Bayou basin in northeast Lincoln Parish.

Hitchcock and Maguire¹ show the species as occurring in extreme northeast Arkansas only, and not in Louisiana or in

¹ HITCHCOCK, C. LEO AND BASSETT MAGUIRE. A revision of the North American species of *Silene*. Univ. Washington Publ. Bot. 13: 1-71. 1947.